12-shi Experimental Carrier-based Striker Unit

After the Fuso Navy encountered the new, tougher flier-type Neuroi during the Fuso Sea Incident, it was apparent that a faster, more powerful striker unit was necessary. Thus Specification 12-shi for a new striker unit design was issued to both Nagashima and Miyahishi. However, the spec requirements were much higher than anything considered possible by current techniques. Deeming them impossible to meet, Nagashima dropped out of the design competition. Given that Professor Miyafuji was away in Europe at the time, Miyahishi also considered withdrawing, but he was able to persuade the Professor to work on the design in Europe. Miyahishi immediately sent technicians to Britannia to assist him. The Professor worked with aeronautics researchers from all over Europe to develop a working theory in which magic power created extra usable space inside the unit. Thanks to this theory, leaving space inside the unit for a Witch's legs was no longer a concern, which made it possible to design larger engines and greater-capacity fuel tanks. The end design had far greater power and a much longer cruising distance, giving the Professor hope that the 12-shi specs were, indeed, within reach.

FUSO ARMY

Kawataki Ki-10 Type 95 Striker Unit

The Kawataki Ki-10 was a bi-fin striker unit designed by the Kawataki Aerospace Company. The primary striker unit of the Fuso Army at the time of the Fuso Sea Incident, it was considered far more maneuverable and agile than the standard. As it had a larger engine than the Nagashima A4N, the Navy's most common striker unit at the time, it was faster, and had better climbing speed and a longer cruising distance. However, striker unit technology was evolving at a rapid pace. At the same time Fuso was putting out the Ki-10, Karlsland was already running test flights for the Bf-109 and Britannia the Hurricane. These units had maximum speeds of over 500km/h, which easily surpassed the Ki-10's top flight speed of 400km/h. Additionally, Fuso's own navy was testing the Miyahishi A5M single-fin which, despite having a far less powerful engine, still topped out at 451km/h. The army quickly pushed for the design of the Ki-10's successor, but in the early days of the war, it was their top-performing striker unit.

ABOUT STRIKER UNITS

By: Takaaki Suzuki

FUSO NAVY

Nagashima A4N Type 95 Carrier-based Striker Unit

The Nagashima A4N, a bi-fin striker unit developed by Nagashima Aircraft Company, was a direct upgrade of the earlier Nagashima A2N. Developed before the widespread acceptance of the Miyafuji Theory, its engine could not be incorporated inside the unit, and was carried in an external backpack. Compared to the large backpack unit of the Nagashima A2N, however, the engine was considerably smaller and still boasted a 30% increase in power. That reduction in size boosted the striker unit's overall maneuverability and combat effectiveness. It was that maneuverability and general stability that made the A4N one of the favorite striker units of the Navy Witches. Both the A2N and the A4N were valuable in developing and solidifying a Witch's battle skill and, once the later Miyahishi A5M was officially adopted, they were maintained as training units for recruits.

Miyahishi A5M Type 96 Carrier-based Striker Unit

The Miyahishi A5M, designed by Miyahishi Heavy Industries, was the first single-fin, all metal striker unit. Professor Miyafuji Ichiro was heavily involved in the design of this unit, and, thanks to what would later become widely known as the "Miyafuji Theory," he was able to incorporate the engine into the striker unit itself. The Professor had first been assigned to striker unit design with the Miyahishi 7-shi Experimental Carrier Striker Unit, in which he employed several new design theories. Unfortunately, it was considered too experimental to see official adoption by the Navy. However, it was the 7-shi's monocoque design, with no interior trusses, that gave the Professor the idea on how to create enough space for an internal engine. At first, he redesigned the 7-shi with the internal engine, but the end result was bulky, inelegant and significantly less powerful. Further adjustments were necessary. Those adjustments resulted in the Miyafuji Theory, and were implemented in the Miyahishi A5M. The highly aerodynamic A5M was 50km/h faster than the earlier A4N model, with greater maneuverability and a much faster equip time for Witches. Though many Navy Witches loved the old A4N, as soon as they tried the newer A5M, they all immediately agreed to its adoption.

Ki-44

Developed by Nagashima alongside the Ki-43, the Ki-44 was a heavily armed striker unit. Unlike previous heavy unit designs, the Ki-44 was developed for fighting large-scale Neuroi. Its design focused on acceleration, climbing ability, better armament, and heavier armor. Unfortunately, while Nagashima had experience developing combat-effective units, this was their first attempt at a heavily-armored one. They also had their hands full developing the Ki-43 concurrently, so work on the Ki-44 lagged further and further behind. However, thanks to techniques learned by the technicians who had been sent to assist Professor Miyafuji, and tips learned from the Bf-109 brought over from Karlsland, a prototype unit was eventually completed. This prototype's engine was insufficient, and most of the armaments intended for it were still in development, making it difficult to call the unit a "heavy fighter." Despite that, it was still capable of sending increased magical power to the shields, boosting its defensive capability. It also had excellent diving ability, making it perfect for the increasingly popular hit-and-run tactics. An advanced model of this unit eventually saw use in the European theater.

Type 97 Medium Land Striker Chi-Ha

International debate had long raged about what kind of equipment to create for land-bound Witches. However, the creed of "mechanical armaments a Witch can wear" espoused by Professor Miyafuji gained enough traction that it was applied not just to airborne Witches, but to land-bound Witches as well. Thus the Land Striker was born. Like many aerial striker units at the time, the earliest land strikers had external, backpack engines. However, the Miyafuji Theory allowed land strikers to incorporate internal engines and armaments. The Fuso Army commissioned Professor Miyafuji to develop the Type 97 unit. Only a prototype was available at the time of the Fuso Sea Incident, but it was immediately adopted by the army and put into mass-production. In battle, the unit performed admirably well. Hard-hitting heavy land strikers with external armor and equipment were also developed.

Nagashima Ki-27 Type 97 Striker Unit

The Nagashima Ki-27 was an all-metal, single-fin striker unit designed by the Nagashima Aircraft Company. Having seen the success of the navy's Miyahishi A5M, the army required Miyahishi, Nagashima, and Kawataki to create a new striker design employing the Miyafuji Theory. Miyahishi created the Ki-33, a redesign of the A5M, and Kawataki offered the Ki-28, but the army chose the Nagashima Ki-27. The Ki-27 incorporated a large number of new innovations. In order to give it both exceptional speed and high combat effectiveness, it was designed to be both as aerodynamic as possible and also to be exceptionally light. The resulting unit had greater acceleration and climbing ability than the A5M, despite having the same engine. And even with all the weight-saving measures, the Ki-27 was still a durable unit with an exceedingly reliable engine. It could be flown out on multiple deployments in a single day with no risk of engine trouble. It is said that during the Fuso Sea Incident, Navy Witches stationed at the joint base would often express their jealousy of the army's Ki-27.

The Nagashima Ki-27

Ki-43

The Ki-27 was an excellent striker unit, but against the new, faster, more heavily-armored flier-type Neuroi it had limited impact. At that time, the European forces were perfecting speed-based hit-and-run battle tactics and two-unit echelon formations in the Espania theater. Upon learning this, Fuso issued a two-tiered specification for new striker unit designs. One unit had to be a light, fast, and maneuverable unit for use against smaller targets. The other had to be a heavy-fighter unit that was still fast, but more heavily armored. Nagashima developed the Ki-43 as a response to the former specification. This light fighter unit would eventually be designated the "Army Type 1 Hayabusa." Though similar in structure to the Ki-27 it was based on, the Ki-43 made thorough use of the Miyafuji Theory to load a larger fuel tank, giving it a greatly extended cruising range. It was more aerodynamic, but its top speed was not much greater than the Ki-27's. It was also less combat-effective, making it difficult for the Army to put it into wide use. However, given the continual demands for newer models during the Fuso Sea Incident, it was sent to the front as an experimental replacement model.

STRIKE WITCHES

1937
FUSO SEA
INCIDENT

KARLSLAND

Messerscharff Bf-109E

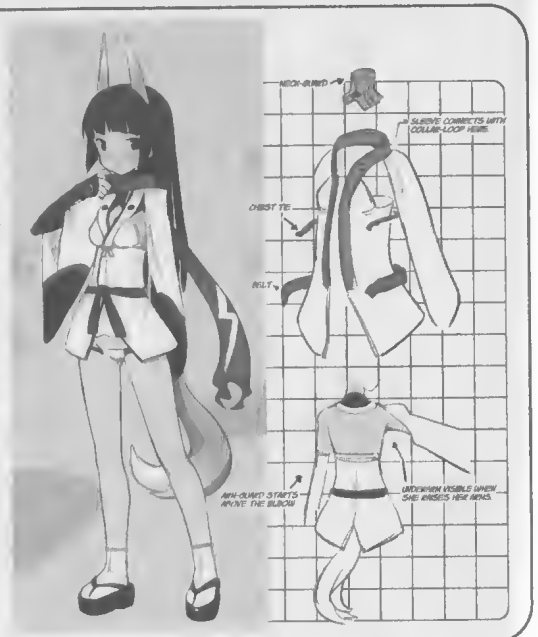
Karlsland's main striker unit, developed by the Messerscharff Company. The original V1 prototype, along with the previous, mass-produced A1, had the old backpack-style engines. However, with the announcement of the Miyafuji Theory, they quickly created the improved B1. Not stopping there, the V1, A1 and B1 underwent continual improvements. Porting the B1's engine into the C1's design resulted in the D1. However, all of these designs had already been in production when the Miyafuji Theory became widely known, so all were lacking in aerodynamics. Additionally, the much-anticipated DB-601 engine had just been completed, so the E1, with the new engine and a more aerodynamic design, was developed. The prototype for the E1 design was taken to Fuso by Karlsland observers during the Fuso Sea Incident, and was later used as reference in the development of the Ki-44.

ANABUKI TOMOKO

Affiliation: Fuso Imperial Army
1st Airborne Division

Rank: Pilot Officer

Tomoko, nicknamed "Tomoe Gozen," is a famous Witch known for playing the lead role in the movie *Flash in the Fuso Sea*. The costume she wore in that movie appears in the diagram, in contrast to the maiden's *hakama* she typically wears to battle. Her trademark scarf, embroidered with the phrase, "Anabuki Courage," was also changed for the movie.



ETO TOSHIKO

Affiliation: Fuso Imperial Army
1st Airborne Division

Rank: Wing Commander

Squad commander for Anabuki, Kato, and the other young aces, Toshiko has exceptional control over her magical powers, especially magical barriers. Her skill is so honed that she can deflect Neuroi attacks with her magical barrier alone. Toshiko and Kitago Fumika have a long history together, hence Fumika's remark, "Eto's scary when she's mad."

KITAGO FUMIKA

Affiliation: Fuso Imperial Navy
12th Flying Corps

Rank: Major

Fumika is a kendo instructor at Fuso's Maizuru Community Center and an aerial Witch with the Fuso Imperial Navy. She was Sakamoto Mio's kendo instructor and, once Mio joined the navy as a Witch, her superior officer and flight instructor. One of the officers Fuso sent as an observer to Europe, she is highly intelligent. Many among the Fuso armed forces call her the "War Goddess."

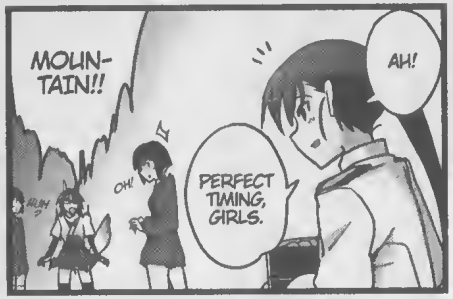
WAKAMOTO TETSUKO

Affiliation: Fuso Imperial Navy
12th Flying Corps

Rank: Flight Petty Officer

Tetsuko has been Mio's classmate since they were both kendo students in the Maizuru Community Center. Since their assignment to the same squadron, they have acted as rivals, constantly trying to outdo each other. Tetsuko is aware that increasing her synchronization with her familiar will boost her magical power, but the side effects--like her hair growing longer--annoy her, so she doesn't do it often.

Good Luck, Tomo-chan!! Pt.4

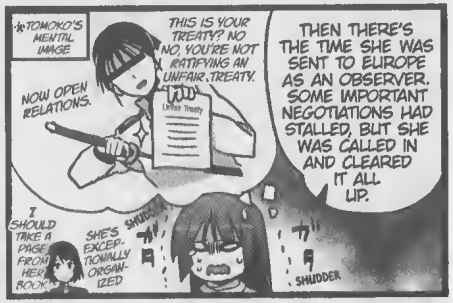


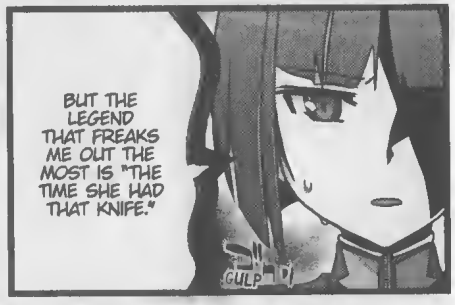
I JUST GOT A CARE PACKAGE FROM A FRIEND OF MINE IN EUROPE. I WAS THINKING OF SHARING IT WITH EVERYONE, BUT I CAN'T FIND THE OTHERS ANYWHERE.
YOU CAN HAVE SOME TOO, IF YOU'D LIKE.
MOUN-TAIN?
GRIN

I HAD THE WRONG IDEA ABOUT HER
WOW, SHE'S ACTUALLY A REALLY NICE PERSON.
WARM AND FUZZY FEELING
BLUSH
OH, I, UM, JUST REMEMBERED A VERY IMPORTANT MEETING. I'LL TELL YOU THE KNIFE STORY LATER.

SO THAT'S WHAT SHE USED THE KNIFE FOR!!
THIS IS SUPPOSED TO BE A REALLY POPULAR SNACK IN NORTHERN EUROPE.
HAVE YOU EVER HEARD OF "SALTY LICORICE"?

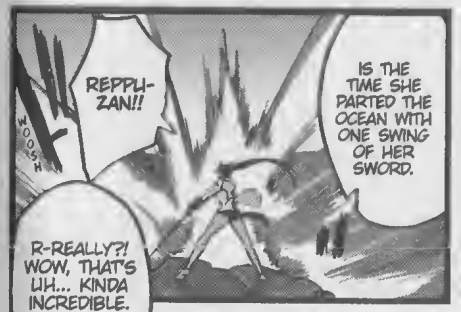
Good Luck, Tomo-chan!! Pt.3


TOMOKO'S MENTAL IMAGE
THIS IS YOUR TREATY? NO NO, YOU'RE NOT RATIFYING AN UNFAIR TREATY.
Unfair Treaty
NOW OPEN RELATIONS.
THEN THERE'S THE TIME SHE WAS SENT TO EUROPE AS AN OBSERVER. SOME IMPORTANT NEGOTIATIONS HAD STALLED, BUT SHE WAS CALLED IN AND CLEARED IT ALL UP.
I SHOULD TAKE A PAGE FROM HER BOOK.
SHE'S EXCEP-TIONALLY ORGAN-IZED
SHUDDER



The End

Good Luck, Tomo-chan!! Pt.2


REPPU-ZAN!!
WOOSH
IS THE TIME SHE PARTED THE OCEAN WITH ONE SWING OF HER SWORD.
R-REALLY?! WOW, THAT'S UH... KINDA INCREDIBLE.
IN MORE WAYS THAN ONE.

Good Luck, Tomo-chan!! Pt.1

Afterword

Thank you very much for reading volume 1 of *Strike Witches Zero: 1937 Fuso Sea Incident*. This was full of firsts for me, but with the generous help of a lot of people, I was able to finish this first volume. Humika Shimada-sama and Takaaki Suzuki-sama provided a wonderful world and interesting characters to populate it. The diligent editors at *Musume TYPE* magazine worked hard to help iron out a variety of issues. Takashi Mineda-sama, my assistant, was an invaluable help with every chapter. And the greatest thanks go out to you, the loyal readers, for all of your warm support. I'm going to take my effort up to the next level for volume 2. I hope to see you there!

–Ningen

ストライクウィッチーズ 零
STRIKE WITCHES ZERO
1937 扶桑海事変

To be continued...